ESC/Java Type Operators

- `\type(E)` : construct spec type from Java type
- `\typeof(E)` : returns dynamic type of E
- `\elemtype(E)` : returns element type of an array
- `S <: T` : S is a subtype of T (or equal)

```java
void storeObject(T[] a, int i, T x) {
    a[i] = x;
}
```

What happens if the dynamic type of `a` is “S[]” where S is a subtype of T?

`ArrayStoreException`
void storeObject(T[] a, int i, T x) {
    a[i] = x;
}

There are multiple ways to specify that this cannot happen:

//@ requires \elemtype(\typeof(a)) == \type(T);
//@ requires \typeof(a) == \type(T[]);
//@ requires x == null ||
//@     \typeof(x) <: \elemtype(\typeof(a));
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- More info can be found in Section 11.4 of the JML reference manual